



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/761,005	01/16/2001	Sung-Won Lee	678-595 (P9710)	6052
28249	7590	08/23/2006	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			SCHEIBEL, ROBERT C	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

4

Office Action Summary	Application No. 09/761,005	Applicant(s) LEE, SUNG-WON	
	Examiner Robert C. Scheibel	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 and 26-35 is/are rejected.
- 7) ☒ Claim(s) 24 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- Examiner acknowledges receipt of Applicant's Request for Continued Examination (RCE) filed 8/7/2006.
- Claims 1, 9, 17, and 27 are currently amended.
- Claims 1-35 are currently pending.

Response to Arguments

1. Applicant's arguments, see pages 10-13, filed 8/7/2006, with respect to the rejection of claims 1-23 and 26-35 under 35 U.S.C. 103(a) have been fully considered but they are not persuasive.

In the first three paragraphs of page 10, Applicant summarizes the previous rejection and the present amendment. In the next paragraph, Applicant summarizes portions of the claims. In the next three paragraphs, Applicant summarizes the two references applied against the independent claims.

In the last paragraph of page 11, Applicant states that the sequence number or message identifier of the present invention is different than that of the combination of 3GPP2 and St. Pierre. While this may be true, the present *claims* are much broader than the invention as defined in the *specification*; the combination of 3GPP2 and St. Pierre reads on the claims as presently worded. Applicant is urged to amend the claims with the limitations contained in claims 24 and 25 which have been indicated as containing allowable subject matter.

On page 12, Applicant argues that 3GPP2 does not disclose the limitation of a sequence number used to identify two or more channel assignment messages and that the Examiner must

Art Unit: 2616

therefore be using improper hindsight as motivation for the combination. Examiner respectfully disagrees. First, Examiner refers Applicant to the motivation provided by St. Pierre as indicated in the previous rejection and the rejection below. Second, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Note that this action is made Final because the claim scope is essentially unaltered from the last claims. The Applicant has added the phrase “or a message identifier” to two places in the independent claims. Because this phrase uses alternative language, the entire phrase “sequence number or a message identifier” can be interpreted to read either “sequence number” or “message identifier”; the former is identical to the earlier set of claims and thus, the scope is the same.

Claim Rejections - 35 USC § 103

2. Claims 1-2, 4, 8-11, 16-19, 26-29, and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over 3rd Generation Partnership Project 2 “3GPP2”, C.S0005-0 Version 1.0 (“3GPP2” hereinafter) in view of U.S. Patent 5,883,888 to St-Pierre.
3. Regarding claim 1, 3GPP2 discloses in section 3.7.3.3.2.24 the step of generating a channel assignment message (the Supplemental Channel Assignment Message described in the

Art Unit: 2616

table, specifically when used to indicate a forward channel assignment) including a start time for channel assignment (FOR_START_TIME), a duration of the channel assignment (FOR_DURATION). 3GPP2 also discloses the step of transmitting the channel assignment message to a mobile station on an existing traffic channel, without receiving a channel assignment request message from the mobile station in the forward supplemental channel assignment message (see pages B-36 to B-38 which show (in the second bullet on the base station side of part 3 of 3) a supplemental channel assignment message sent without a request message from the mobile station (forward supplemental channel initiated from the base station side)).

Similarly, regarding claim 9, 3GPP2 discloses in section 3.7.3.3.2.24 and in figures 2.6.6.2.5.1.1-1 and 2.6.6.2.5.1.1-2 the step of receiving a plurality of channel assignment messages successively. The fields of the channel assignment message (start time (FOR_START_TIME), a duration (FOR_DURATION), and a channel identifier for channel identification (BASE_CODE_CHAN)) are disclosed in section 3.7.3.3.2.24. The limitation of receiving a plurality of channel assignment messages is disclosed in figures 2.6.6.2.5.1.1-1 and 2.6.6.2.5.1.1-2 on page 2-320. 3GPP2 also discloses the step of transmitting the channel assignment message to a mobile station on an existing traffic channel, without the base station receiving a channel assignment request message (see pages B-36 to B-38 which show (in the second bullet on the base station side of part 3 of 3) a supplemental channel assignment message sent without a request message from the mobile station (forward supplemental channel initiated from the base station side)). The step of storing the received channel assignment messages in a memory according to the start times and durations of the channel assignment messages is

Art Unit: 2616

disclosed in the section from line 4 on page 2-288 through line 40 on page 2-292; this section describes that the various message fields are to be stored in the mobile station. Figures 2.6.6.2.5.1.1-1 and 2.6.6.2.5.1.1-2 also disclose the limitation that data communication is conducted on channels assigned by the channel assignment messages.

Similarly, regarding claim 17, 3GPP2 discloses in section 3.7.3.3.2.24 and in figure 2.6.6.2.5.1.1-1 and 2.6.6.2.5.1.1-2 the step of receiving a plurality of channel assignment messages successively. The fields of the channel assignment message (start time (FOR_START_TIME), a duration (FOR_DURATION), and a channel identifier for channel identification (BASE_CODE_CHAN)) are disclosed in section 3.7.3.3.2.24. The limitation of receiving a plurality of channel assignment messages is disclosed in figures 2.6.6.2.5.1.1-1 and 2.6.6.2.5.1.1-2 on page 2-320. 3GPP2 also discloses the step of transmitting the channel assignment message to a mobile station on an existing traffic channel, without the base station receiving a channel assignment request message (see pages B-36 to B-38 which show (in the second bullet on the base station side of part 3 of 3) a supplemental channel assignment message sent without a request message from the mobile station (forward supplemental channel initiated from the base station side)). The step of storing the received channel assignment messages in a memory according to the start times and durations of the channel assignment messages is disclosed in the section from line 4 on page 2-288 through line 40 on page 2-292; this section describes that the various message fields are to be stored in the mobile station. The limitation of conducting data communication on a channel corresponding to the channel identifier of a first read channel assignment message for a period between the start time and the end of the duration set in the read channel assignment message is disclosed in the "Assignment 1" message and the

Art Unit: 2616

associated channel usage in Figure 2.6.6.2.5.1.1-1 (b). The limitation of then on a channel corresponding to the channel identifier of a next read channel assignment message for a period between the start time and the end of the duration set in the next channel assignment message, the start time of the next channel assignment message being set to or after the end of the data communication according to the first read channel assignment message is disclosed in the "Assignment 2" message and the associated channel usage in Figure 2.6.6.2.5.1.1-1 (b). This figure clearly shows that the start time of the next channel assignment message is after the end of the data communication according to the first channel assignment message.

Similarly, regarding claim 27, 3GPP2 discloses the limitation of a receiver for receiving a plurality of channel assignment messages successively from a base station on an existing traffic channel, each of the channel assignment messages having the fields of a start time, a duration, and a channel identifier for channel identification in section 3.7.3.3.2.24 and in figure 2.6.6.2.5.1.1-1 and 2.6.6.2.5.1.1-2 as described above in claims 9 and 17. The receiver is inherent to a system receiving channel assignment messages as the means of receiving these messages. 3GPP2 discloses the limitation of a memory having a scheduling table for storing the received channel assignment messages and the limitation of a controller for storing the received channel assignment message in the scheduling table of the memory according to the durations of the channel assignment messages are disclosed in the section from line 4 on page 2-288 through line 40 on page 2-292. This section describes that the various message fields are to be stored in the mobile station; this information must be stored in some sort of memory. Further, 3GPP2 discloses the limitation of the controller sequentially reading the stored channel assignment messages, and assigning channels based on the channel identifiers of the read channel

Art Unit: 2616

assignment messages, for data communication in figures 2.6.6.2.5.1.1-1 and 2.6.6.2.5.1.1-2.

These figures show (a) that the channel assignment messages are processed after they are received and (b) that they are processed in the order they are received (indicating that they are stored for later processing and sequentially read). The use of the channel based on the respective assignment messages also indicates that channels are assigned based on the channel identifiers of the read channel messages.

However, 3GPP2 does not disclose expressly the limitation of claims 1, 9, 17, and 27 of the channel assignment message including a sequence number or a message identifier for identifying two or more channel assignment messages or the limitation that the sequence number or message identifier identifies a sequential order for each of a plurality of channel assignment messages. St-Pierre discloses the limitation of using a sequence number for identifying two or more messages in lines 37-54 of column 5. The duplicate frames (two or more messages) are each identified by the same sequence number. Further, St-Pierre indicates in lines 42-44 of column 5 that the sequence numbers can be generated by incrementing, thus indicating a sequential order of reach of a plurality of messages. 3GPP2 and St-Pierre are analogous art because they are from the same field of endeavor of wireless communications. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify 3GPP2 by adding sequence numbers to the channel assignment messages. The motivation for doing so would have been to identify duplicates for the purposes of soft handover as suggested by St-Pierre in the abstract. Therefore, it would have been obvious to combine St-Pierre with 3GPP2 for the benefit of assisting in soft handover to obtain the invention as specified in claim 1, 9, 17, and 27.

Regarding claims **2, 10, 18, and 28**, 3GPP2 discloses the step of deleting a previous channel assignment message in lines 4-7 of page 2-320 and figure 2.6.6.2.5.1.1-2. The second message replaces the first, thus effectively deleting it.

Regarding claims **4, 11, 19, and 29**, 3GPP2 discloses the step of updating a previous channel assignment message in figure 2.6.6.2.5.1.1-1 (a). The first channel assignment is updated by the second channel assignment to extend the duration of the first channel assignment.

Regarding claims **8, 16, 26, and 35**, 3GPP2 discloses the limitation that the channel assignment message(s) are supplemental channel assignment message(s) in the title of section 3.7.3.3.2.24 “Supplemental Channel Assignment Message”.

Regarding claim **34**, 3GPP2 discloses the limitation of conducting data communication on a channel corresponding to the channel identifier of a first read channel assignment message for a period between the start time and the end of the duration set in the read channel assignment message is disclosed in the “Assignment 1” message and the associated channel usage in Figure 2.6.6.2.5.1.1-1 (b). The limitation of then on a channel corresponding to the channel identifier of a next read channel assignment message for a period between the start time and the end of the duration set in the next channel assignment message, the start time of the next channel assignment message being set to or after the end of the data communication according to the first read channel assignment message is disclosed in the “Assignment 2” message and the associated channel usage in Figure 2.6.6.2.5.1.1-1 (b). This figure clearly shows that the start time of the next channel assignment message is after the end of the data communication according to the first channel assignment message.

Art Unit: 2616

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over 3rd Generation Partnership Project 2 “3GPP2”, C.S0005-0 Version 1.0 (“3GPP2” hereinafter) in view of U.S. Patent 5,883,888 to St-Pierre in further view of U.S. Patent 4,612,637 to Davis et al.

The combination of 3GPP2 and St-Pierre discloses all the limitations of parent claim 2 as discussed in the rejection under 35 U.S.C. 102(a) above. The combination of 3GPP2 and St-Pierre does not disclose expressly the limitation of setting the message duration of the channel assignment message to 0 of claim 3. Davis discloses the limitation of deleting (canceling) an assignment message by setting the duration field to zero in lines 7-10 of column 6. Davis sets the Aloha parameter to zero to cancel an rqs message. In lines 41-43 of column 4, Davis indicates that the Aloha message is the number of available time slots, which is equivalent to the available message duration. 3GPP2, as modified above, and Davis are analogous art because they are from the same field of endeavor of channel assignment for data communications. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify 3GPP2, as modified above, to use a zero duration to delete/cancel a previous channel assignment. The motivation for doing so would have been to prevent collisions among users as suggested by Davis in lines 9-10 of column 6 (“prevents other users from transmitting while the called party is transmitting RDY”). Therefore, it would have been obvious to combine Davis with 3GPP2, as modified above, for the benefit of preventing collisions to obtain the invention as specified in claim 3.

5. Claims 5, 7, 12, 14, 20, 22, 30, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over 3rd Generation Partnership Project 2 “3GPP2”, C.S0005-0 Version 1.0

Art Unit: 2616

("3GPP2" hereinafter) in view of U.S. Patent 5,883,888 to St-Pierre in further view of U.S. Patent 6,011,806 to Herring.

Regarding claims 5 and 7, the combination of 3GPP2 and St-Pierre discloses all the limitations of parent claim 4 as discussed in the rejection under 35 U.S.C. 102(a) above. The combination of 3GPP2 and St-Pierre does not disclose expressly the limitations of claims 5 and 7 of setting the sequence number according to the previous channel assignment message when updating a channel assignment. Herring discloses the limitations of claim 5 of setting the sequence number of the channel assignment message according to the sequence number of the previous channel assignment message in lines 9-13 of column 9. According to the broad language of the current claims, the duplication of the command is considered to update the command and thus disclose the limitation of claim 5. Since the transmitter assumes that the original command was not received, the duplication of this command effectively updates the receiver. Similarly, the limitation of claim 7 that the sequence number of the updating channel assignment message is set to be equal to the sequence number of the previous channel assignment message is disclosed by Herring. 3GPP2, as modified above, and Herring are analogous art because they are from the same field of endeavor of data communications. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify 3GPP2, as modified above, to use the same sequence number as in the previous channel assignment message when updating a channel assignment. The motivation for doing so would have been to uniquely identify which channel assignment is being updated. Therefore, it would have been obvious to combine Herring with 3GPP2, as modified above, for the benefit of identifying the message to be updated to obtain the invention as specified in claims 5 and 7.

Art Unit: 2616

Regarding claims 12, 14, 20, 22, 30, and 32, the combination of 3GPP2 and St-Pierre discloses all the limitations of parent claims 10-11, 18-19, and 28-29 as discussed in the rejection under 35 U.S.C. 102(a) above. The combination of 3GPP2 and St-Pierre does not disclose expressly the limitations of claims 12, 14, 20, 22, 30, and 32. Herring discloses the limitation of determining that a message was already received or stored in memory if a message with an identical sequence number is received from line 67 of column 3 through line 2 of column 4. 3GPP2, as modified above, and Herring are analogous art because they are from the same field of endeavor of data communications. At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the sequence number to determine if a channel assignment has already been received. The motivation for doing so would have been to identify when duplicate information is being received. Therefore, it would have been obvious to combine Herring with 3GPP2, as modified above, for the benefit of detecting duplicate information to obtain the invention as specified in claims 12, 14, 20, 22, 30, and 32.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over 3rd Generation Partnership Project 2 “3GPP2”, C.S0005-0 Version 1.0 (“3GPP2” hereinafter) in view of U.S. Patent 5,883,888 to St-Pierre in further view of U.S. Patent 4,612,637 to Davis et al in further view of U.S. Patent 6,011,806 to Herring.

Regarding claim 6, the combination of 3GPP2 and St-Pierre and Davis discloses all the limitations of parent claim 3 as discussed above. The combination of 3GPP2 and St-Pierre and Davis does not disclose expressly the limitation of claim 6. However, it is well known in the art that a sequence number is used to identify a previous message. For example, consider Herring,

Art Unit: 2616

which discloses the limitation of setting the sequence number to be the same as that of the previous sequence number in lines 9-13 of column 9. 3GPP2, as modified above, and Herring are analogous art because they are from the same field of endeavor of data communications. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify 3GPP2, as modified above, to use the same sequence number as in the previous channel assignment message when deleting a channel assignment. The motivation for doing so would have been to uniquely identify which channel assignment is being deleted. Therefore, it would have been obvious to combine Herring with 3GPP2, as modified above, for the benefit of identifying the message to be deleted to obtain the invention as specified in claim 6.

7. Claims **13, 15, 21, 23, 31, and 33** are rejected under 35 U.S.C. 103(a) as being unpatentable over 3rd Generation Partnership Project 2 “3GPP2”, C.S0005-0 Version 1.0 (“3GPP2” hereinafter) in view of U.S. Patent 5,883,888 to St-Pierre in further view of U.S. Patent 6,011,806 to Herring in further view of U.S. Patent 4,612,637 to Davis et al.

Regarding claims 13, 15, 21, 23, 31, and 33, 3GPP2, modified by Herring above, discloses all the limitations of parent claims 12, 14, 20, 22, 30, and 32 as described in the rejection above. 3GPP2, modified, does not disclose expressly the limitation of using the value of the duration field to distinguish whether to delete or update the channel assignment information as disclosed in claims 13, 15, 21, 23, 31, and 33. Davis discloses the limitation of deleting (canceling) an assignment message by setting the duration field to zero in lines 7-10 of column 6. Davis sets the Aloha parameter to zero to cancel an rqs message. In lines 41-43 of column 4, Davis indicates that the Aloha message is the number of available time slots, which is

Art Unit: 2616

equivalent to the available message duration. It similarly follows that a non-zero duration would indicate that the message was simply updating (duplicating) the original message as disclosed by Herring and discussed in the rejection of the parent claims above. 3GPP2, as modified above, and Davis are analogous art because they are from the same field of endeavor of channel assignment for data communications. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify 3GPP2, as modified above, to use a zero duration to delete/cancel a previous channel assignment. The motivation for doing so would have been to prevent collisions among users as suggested by Davis in lines 9-10 of column 6 (“prevents other users from transmitting while the called party is transmitting RDY”). Therefore, it would have been obvious to combine Davis with 3GPP2, as modified above, for the benefit of preventing collisions to obtain the invention as specified in claims 13, 15, 21, 23, 31, and 33.

Allowable Subject Matter

8. Claims **24-25** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 2616

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert C. Scheibel whose telephone number is 571-272-3169. The examiner can normally be reached on Monday and Thursday from 6:30-5:00 Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PCS 8-17-06
Robert C. Scheibel
Patent Examiner
Art Unit 2616
SEEMA S. RAO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600
Seema S. Rao
8/21/06